



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,529	10/31/2001	Thomas P. Hager	25145A	8583

22889 7590 11/05/2003

OWENS CORNING
2790 COLUMBUS ROAD
GRANVILLE, OH 43023

EXAMINER

GRAY, JILL M

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,529

Applicant(s)

HAGER ET AL.

Examiner

Jill M. Gray

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

The rejection of claims 1-5 under 35 U.S.C. 102(b) as being anticipated by Olesen et al, 4,956,039 is withdrawn in view of applicants amendment.

The cancellation of claims 9-22 has been noted. Currently, claims 1-8 and 23-28 are under prosecution.

Specification

The use of the trademarks such as "KEVLAR" or "VINCH 500" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record.

Claim 6 relies on trademarks to identify the particular cured vinyl ester resin material being claimed. This is improper because a trademark is used to identify the source of goods, and not the goods themselves. Hence, a trademark does not identify

Art Unit: 1774

or describe the goods associated with the trademark. Therefore, the scope of claim 6 is uncertain since the trademark cannot be used properly to identify any particular material or product which renders claim 6 indefinite and constitutes an improper use of the trademark. See MPEP 2173.05(u). Applicants' amendment of claim 6 to include the phrase "ultraviolet light cured vinyl ester" does not remedy this concern because the specific vinyl ester resin materials referred to by trademark have not been identified.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fernyhough et al, 5,700,417, (Fernyhough) for reasons of record.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Levy et al, 4,479,984 (Levy).

Levy teaches multifilament bundles impregnated with an ultraviolet curable resin to form a composite material suitable for use as a strength member in optical fiber cables. The filaments can be KEVLAR yarn, E-glass or S-glass rovings, as required by claims 2-5. See Table III. In addition, Levy teaches that a secondary coating may be applied around the composite. See column 10, lines 37-39.

Accordingly, Levy anticipates the invention as claimed in present claims 1-5.

Claim Rejections - 35 USC § 103

Art Unit: 1774

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-8 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernyhough et al, 5,700,417 (Fernyhough) in view of Olesen et al, 4,956,039, (Olesen) for reasons of record.

Claims 6-8 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy as applied above to claims 1-5 in view of Fernyhough, as applied above to claims 1-8 and 23-28.

Levy is as applied above but does not teach the specific topcoat composition or mixtures of filaments.

Levy and Fernyhough each teach strength members comprising UV cured vinyl ester resin matrix material having a plurality of elongated fiber members encased therein, and wherein an outer topcoat can be applied thereto. As to claim 6, the teachings of Fernyhough at columns 2 and 3 would have provided a suggestion to the skilled artisan that any UV curable vinyl ester resin material could be used with the reasonable expectation of success. Furthermore, in the absence of a clear definition of the specific resin materials claimed in claim 6, it is the examiner's position that the teachings of Levy and Fernyhough would encompass any UV curable vinyl ester resin material known in the art including those of the type contemplated by applicants. As to claims 7 and 8, Fernyhough teaches that ethylene copolymers of vinyl esters and

Art Unit: 1774

polybutylene terephthalate can be added to the resin material. This teaching would encompass polybutylene terephthalate copolymers as well and in the absence of unexpected properties directly related to the specific polybutylene terephthalate material, this is not seen to be a matter of invention. In addition, it should be noted that the language of "comprises" does not exclude the blends as taught by Fernyhough. As to claims 23-28, Fernyhough specifically teaches polyethylene terephthalate fibers and aramid fibers and mixtures of these with glass fibers. See column 4, lines 34 and 37-38. This teaching would have provided motivation to the skilled artisan to modify the teachings of Levy by forming a composite rod comprising a mixture of filaments, said mixture being glass and aramid fibers or glass and polyethylene terephthalate fibers. As to a plurality of E-glass fibers and S-glass fibers, this limitation is a matter of design choice, and not construed to be a matter of invention. Moreover, it would have been obvious to use a mixture of the two types of glass fibers to obtain the efficacious properties associated therewith, namely, the added strength of S-glass fibers, and reduced cost of E-glass fibers.

Therefore, when considered as a whole, the combined teachings of Levy and Fernyhough would have rendered obvious the invention as claimed in present claims 5-8 and 23-28.

Response to Arguments

Applicant's arguments filed August 13, 2003 have been fully considered but they are not persuasive.

Art Unit: 1774

Applicants argue that Fernyhough does not describe an outer topcoat layer surrounding the matrix coated elongated fibers, rather that the cable not the strengthening members themselves are encased in the outer "jacket".

In this regard, Fernyhough teaches radiation-cured fiber reinforced composites wherein an outer coating of the same resin formulation may be applied thereto (column 5, lines 13-19). In addition, Fernyhough teaches at column 6, line 54 through column 7, line 2, that an EVA polymer can be used as an outer coating for the rods to improve the adhesion to the jacketing layer. Accordingly, Fernyhough does in fact describe an outer topcoat layer surrounding the matrix coated elongated fibers.

Applicants argue that there is no indication that Fernyhough is used in optical fiber cables as in the present invention.

In this concern, it is the examiner's position that the skilled artisan is expected and presumed to know something about the art other than what a reference literally teaches. It is well known in the art to use fiber reinforced composite rods as support elements in optical fiber cables. See Olesen, column 1, lines 5-24. That Fernyhough does not specify strength members for "optical fiber cables" is of no moment in view of the general level of knowledge and skill in the art at the time the invention was made. The skilled artisan would have immediately envisaged the strength members of Fernyhough used in optical fiber cables.

Applicants argue that the examiner has used hindsight reconstruction.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

Art Unit: 1774

any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding claims 5 and 24-28, applicants argue that one would have to add the high strength synthetic members not contemplated in either reference.

In this concern, claim 5 is not limited solely to the presence or inclusion of high strength synthetic fibers. In fact, the teachings of Olesen of S-glass or E-glass would have rendered obvious claim 5. As to claims 24-26, Fernyhough specifically teaches polyethylene terephthalate fibers and aramid fibers and mixtures of these fibers with glass fibers. See column 4, lines 34 and 37-38. This teaching in combination with the teachings of Olesen would have rendered obvious a plurality of fibers comprising a mixture of glass and aramid or glass and polyethylene terephthalate, wherein the glass fibers are E-glass or S-glass fibers. As to a plurality of E-glass fibers and S-glass fibers, this limitation is a matter of design choice, and not construed to be a matter of invention. Moreover, it would have been obvious to use a mixture of the two types of glass fibers to obtain the efficacious properties associated therewith, namely, the added strength of S-glass fibers, and reduced cost of E-glass fibers.

No claims are allowed.

Conclusion

Art Unit: 1774

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on August 26, 2003 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 703.308.2381. The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 703.308.0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1774

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0651.



jmg

Jill M. Gray
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

